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PLAN OF WORK:
INTER-AGENCY COORDINATION;
U.S. DEPARTMENT OF AGRICULTURE ASSISTANCE TO CORPS OF ENGINEERS
LOWER MISSISSIPPI RIVER AND TRIBUTARIES

Introduction

In May 1955 the President of the Mississippi River Commission contacted the U. S. Department of Agriculture through the Soil Conservation Service concerning cooperative work on the Lower Mississippi River and Tributaries. The Mississippi River Commission, through the Corps of Engineers, is conducting a review of the Mississippi River and Tributaries (MR&T) Project authorized in the 1928 Flood Control Act as modified by subsequent acts. The purpose of the review is to investigate the adequacy of the authorized project together with any modifications or additions that may be necessary. A part of the review consists of an economic evaluation of the entire project by the Corps of Engineers. The Corps of Engineers has asked the Department of Agriculture to supply certain basic agricultural information for this purpose.

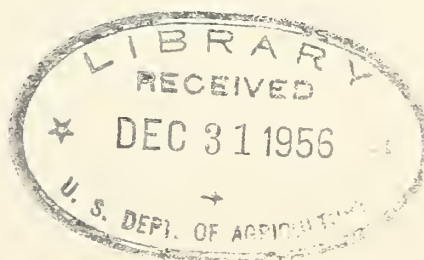
The Department of Agriculture has agreed to conduct a study of the MR&T area to develop the information requested. The study will be conducted in such a way as to meet the Corps' request as expeditiously as practicable and at the same time provide information which will be useful to the Department and to others. The study will be conducted under authority of Section 6 of Public Law 566, 83d Congress. It will be carried out in accordance with the Memorandum of Understanding dated February 2, 1956, between the Soil Conservation Service, Forest Service and the Agricultural Research Service. This plan of work is issued pursuant to the provisions of that Memorandum of Understanding.

The general area to be covered by the study consists of the Mississippi alluvial valley from Cape Girardeau, Missouri, to Head of Passes in Louisiana plus certain upland tributary areas wherein conditions exist which cause major problems to the alluvial valley.

Work to be Accomplished

The work falls into three general divisions as follows:

1. Certain specified project areas in the Mississippi delta which in the aggregate virtually encompass the entire Lower Mississippi Alluvial Valley.
2. Certain specified upland watersheds which are tributary to the delta lands and wherein lie the sources of problems of siltation and overflow to delta lands.
3. Certain general region-wide studies on specified subject matter which are not limited to a specific project area.



For projects in the delta it generally will be necessary to conduct studies for three conditions. These are:

1. Present
2. Future without project
3. Future with project

Under each of the conditions it will be necessary to determine acreages of various soil units involved, land use and crop distribution, production, value of production, cost of production, and net values. It will also be necessary to determine associated project costs such as those for farm drainage, group drainage, and land conversion. It will then be possible to summarize annual net production values and associated project costs.

The upland watersheds to be studied fall into the following groupings according to the type of studies to be made:

1. Yazoo Headwater Project area in Mississippi and Crowleys Ridge in Arkansas.
2. Nonconnah and Horn Lake Creeks; Hatchie and Tuscumbia Rivers; Obion and Forked Deer Rivers; Loosahatchie River; West Kentucky Tributaries (Mayfield Creek, Obion Creek, and Bayou du Chien); all in north Mississippi, Tennessee and Kentucky.
3. Reelfoot Lake area, Kentucky and Tennessee.

The general objective is to determine the physical effects that a watershed treatment program would have on runoff and sediment reduction on downstream areas, primarily in the Mississippi Delta. The technical procedures and agency participation will be generally in accordance with guides and handbooks in current use for similar departmental studies.

Special studies of region-wide scope will include the following:

1. Irrigation, including the analysis of climatological data.
2. Over-all effects on forest industry and critical forest materials.
3. Aggregate project effects on the production of agricultural and forest products.
4. Grouping of soils of the entire Delta area into units suitable for planning purposes.
5. Other studies required to meet over-all objectives of the survey.

Procedures

A field advisory committee has been established to facilitate participation by Department of Agriculture agencies in the study. Membership of this committee is as follows:

John A. Short, Soil Conservation Service, Chairman
(Paul T. Gillett, Alternate)

Cecil E. Clapp, Forest Service
(Paul H. Russell, Alternate)

William A. Green, Agricultural Research Service
(Willis G. Eichberger, Alternate)

The Field Committee members will maintain appropriate liaison with the administratively responsible officers of their respective Services and facilitate the coordination of activities by their respective Services in carrying out the investigations and surveys. The Committee also will maintain sufficient liaison with field offices of other Department agencies and of agencies in other Departments to assure correlation of field work. The Committee will develop standards, criteria and procedures needed to facilitate and coordinate participation by Department agencies.

The work of SCS will be conducted administratively through the State Conservationists of Missouri, Arkansas, Louisiana, Mississippi, Tennessee and Kentucky. Technical and cartographic assistance will be provided by the Engineering and Watershed Planning and the Cartographic Units at Fort Worth and Spartanburg.

The work of the Forest Service will be conducted administratively through the Atlanta Regional Office and a study headquarters in Memphis.

The work of the Agricultural Research Service will be carried out by a special survey staff under the direction of its Field Advisory Committee member with such assistance from regular research program staff members as may be required.

Reports will be submitted to the Corps of Engineers on their project areas in the delta and on watershed areas in the uplands in accordance with a mutually agreed to schedule. These project area reports will be submitted to the appropriate District Engineer, Corps of Engineers, by the appropriate State Conservationist after having been reviewed by the field committee. The material in these project area reports will be compiled in such a way as to contribute to an over-all agricultural report of the entire area.

Soil Conservation Service Responsibilities

The Soil Conservation Service will develop project area reports, using data and statements developed by participating Department agencies, and after review by the field committee, transmit them to the Corps of Engineers. In this connection it will develop:

1. An inventory of the soils of the entire alluvial valley, using soil mapping units appropriate for planning purposes. These will be delineated on inch-to-the-mile quadrangle sheets as work sheets for the study. Areas of soil mapping units will be measured and tabulated for project area study.

2. Land use and crop distribution and yield data for each soil mapping unit, under present and projected conditions, with and without project development, with participation of representatives of other agencies for application in project study areas.
3. Crop production costs for the various present and projected yield levels involved, developed with participation of representatives of other agencies, for application in project study areas.
4. Upland watershed plans for reduction of run-off and sedimentation damages where upland watershed conditions contribute to major problems on alluvial lands below. The Forest Service participates in this planning in accordance with established procedures.
5. Agricultural drainage needs and costs. This will include costs of establishing and maintaining farm systems and also the installation, rehabilitation and maintenance of group drainage ditches required to effectively connect farm systems to proposed project works.
6. Farm irrigation potentialities and costs. Specific irrigation project studies are not anticipated.
7. Land conversion costs that would be involved with development of agricultural lands following installation of proposed project works.

The above tasks will require the development of certain basic data, for use generally in studies or project areas, as well as the carrying out of specific project studies. The Soil Conservation Service with appropriate participation of the Forest Service and the Agricultural Research Service will develop a departmental report containing compilations of project area report data, additional data for the alluvial areas not included in project area studies, and other appropriate material.

Forest Service Responsibilities

The U. S. Forest Service, using available data supplemented as required largely on a sampling basis, will develop data on forest lands, forest land needs and values required in the study. Upland watershed procedures for Forest Service participation will be standard as currently used in other programs. The data provided by the Forest Service will be keyed to the soil mapping units adopted as standard for the whole study area and as delineated on inch-to-the-mile quadrangle sheets provided by the Soil Conservation Service.

Legends and soil unit descriptions and field collaboration in selection of typical soil situations for sampling will be made available by the Soil Conservation Service. (Forestry data may be presented most advantageously by grouping some mapping units).

The Forest Service will provide the following kinds of information and data for use in the study:

1. Estimated annual yields and monetary values of the hardwood forests of the bottomlands and terraces comprising the project and subproject study areas. These values are needed to determine whether land should remain in timber or be converted to pasture and field crops and to help arrive at net values of any land use conversions decided upon. These data need to include existing yield levels and net values; the yield levels and net values that could be expected under anticipated levels of management; and the periods required to develop yields and net values from present to expected levels. These factors then form the basis for establishing annual equivalent values of forest land production.
2. Statements concerning the probable effects of installation of proposed project facilities on forest yields and values, for possible use as qualifying statements in the Department's reports to the Corps of Engineers. These statements would consider probable effects of lowered water tables and shallower depths and shorter periods of inundation.
3. Information on non-farm ownership and operational patterns, and other data that would aid in arriving at sound and proper estimates of probable land use after installation of proposed facilities.
4. To the extent required in proper analysis of specific situations and project proposals, furnish data on erosion and hydrologic conditions and suggested plans of control for forest areas of watersheds causing special problems on bottomlands and proposed works.
5. Other information that would be of value in determining sound treatment plans and in evaluating them properly. Such information might include an analysis and appraisal of the effects of a proposal on forest industries and on supplies of strategic, critical or seriously depleted materials.

The Forest Service will submit data and other information for each project study area to the appropriate State Conservationist of the Soil Conservation Service, on agreed-upon time schedules, for preparation of project reports. Informational copies of Forest Service material will be sent to the Field Committee.

Agricultural Research Service Responsibilities

The Agricultural Research Service will provide information on national production requirements and relate them to the study area; provide background economic data; and develop economic procedures and criteria for use in the study. It will consult with Department agencies on general economic procedures to secure uniformity of results. It will supply basic price data required in the study and will assist the Soil Conservation Service in

developing projections of crop production, land conversion and other associated cost data; and will collaborate with the Forest Service in developing similar data for forest lands. Working closely with State College and Experiment Station staff specialists and others, assigned personnel of the Agricultural Research Service will assist the Soil Conservation Service in establishing crop yield data by soil units. It will assist the Soil Conservation Service in projecting factors such as land use and crop production into the future with and without proposed projects.

The Agricultural Research Service will also engage in special studies that may be required. These studies may include: Land use trends in the Mississippi Alluvial Valley; pertinent financial and organizational aspects of drainage, levee and improvement and other districts; correlation of climatological and soils data with respect to periodicity of soil moisture deficiencies and excesses (to be developed in cooperation with the Weather Bureau); and compilations of estimates of production that could be expected from all recommended projects and their analysis in respect to national production requirements.

In most instances, representatives of Agricultural Research Service will be working with and furnishing data directly to technicians of either the Soil Conservation Service or the Forest Service. However, data developed for general use should be reviewed by the Field Committee before being furnished to technicians of either Service. Data developed for use in more than a single project should be given to the State Conservationist with informational copies to the Field Committee for review.

Time Schedules

The present plan of the Corps of Engineers calls for the submission of an interim report by them by June 30, 1957, and the submission of a final report by June 30, 1958. In order for the Corps of Engineers to meet these deadlines, all basic data supplied by the Department will have to be submitted by December 31, 1957. The Corps of Engineers has established dates by project areas as to when they desire project area reports from the Department to be in their hands. Since it is apparent that project area reports cannot be completed, in many cases, on the schedule indicated, the Field Committee will work with the Corps of Engineers in revising the schedule as it is necessary.

Schedule Proposed by the Corps of Engineers (1/9/56)

Memphis District, Corps of Engineers

White River Blackwater Area, Ark.	- February 29, 1956
Cache River Basin, Ark.	- April 30, 1956
New Madrid Floodway, Mo.	- April 30, 1956
Big Creek Basin, Ark.	- September 30, 1956
Dials Creek, Ark.	- January 31, 1957
L'Anguille River, Ark.	- March 31, 1957
St. Francis River and Tributaries, Ark. & Mo.	- April 30, 1957

Vicksburg District, Corps of Engineers

Ouachita River Levees, La.	- June 30, 1956
Bayou Bartholomew, Ark.	- September 30, 1956
Boeuf, Tensas & Macon, Ark. & La.	- October 31, 1956
Grand Prairie & Bayou Meto, Ark.	- October 31, 1956
Red River Blackwater Area, La.	- December 31, 1956

New Orleans District, Corps of Engineers

East Rapides and South Central Avoyelles Parishes, La.	- September 30, 1956
East Atchafalaya Protection Levee Intercepted Drainage, La.	- April 30, 1957
West Atchafalaya Floodway Drainage, La.	- April 30, 1957
Red River Blackwater Area, La.	- April 30, 1957
Water Supply from Mississippi River for Irrigation	- August 31, 1957
Rapides, Boeuf, Coodrie and Courtableau & Outlets, La.	- October 30, 1957
Pointe Coupee Parish Drainage, La.	- November 30, 1957
Atchafalaya Water Supply to East Areas	- November 30, 1957
Atchafalaya Water Supply to West Areas	- December 31, 1957

Memphis District, Corps of Engineers

Loosahatchie River, Tenn.	- March 31, 1956
Reelfoot Lake Area, Ky. & Tenn.	- November 30, 1956
West Kentucky Tributaries, Ky.	- January 31, 1957
Obion and Forked Deer Rivers, Tenn.	- February 20, 1957
Hatchie and Tuscumbia Rivers, Miss. & Tenn.	- May 31, 1957

Vicksburg District, Corps of Engineers

Yazoo Headwater Basin, Miss.	- August 31, 1956
Yazoo Blackwater, Miss.	- January 31, 1957
Big Sunflower River, etc., Miss.	- January 31, 1957

Funds

Funds available for fiscal year 1956 and funds requested for fiscal year 1957 are as follows:

<u>Agency</u>	<u>1956</u>	<u>1957</u>
Soil Conservation Service	\$152,000	\$270,000
Forest Service	30,000	65,000
Agricultural Research Service	<u>1</u> /30,000	<u>2</u> /65,000

1/ \$6,000 of this amount is to be advanced directly to the Weather Bureau by the Soil Conservation Service for cooperative work with the Agricultural Research Service.

2/ It is expected that a portion of this amount will be advanced directly to the Weather Bureau by the Soil Conservation Service for cooperative work with the Agricultural Research Service.

